

WHAT IS CLAIMED IS:

1           1.     A low profile evaporative cooler comprising:  
2                     a cooler housing including a front panel, an opposing rear  
3 panel, a right and left side extending between the front and rear panels,  
4 each of the right and left sides having at least one opening configured to  
5 permit air to enter an interior of the housing, the right and left sides  
6 extending a predetermined width between the front and rear panels, the  
7 width being less than one half of a length defined by the distance  
8 between the right and left sides;  
9                     a rigid media located proximate each of the right and left  
10 sides;  
11                    a water distribution system to provide water to the rigid  
12 media; and  
13                    means for drawing air through the rigid media.

1           2.     The apparatus of claim 1 wherein the means for drawing air  
2 includes a first centrifugal blower having a blower housing and a blower  
3 wheel, the blower including a pair of air inlets that face the right and left  
4 sides respectively.

1           3.     The apparatus of claim 2, further including a second  
2 centrifugal blower, wherein the first and second centrifugal blowers are  
3 located one on top of another in a vertical position, each of the blowers  
4 including an exhaust outlet extending proximate the rear panel.

1           4.     The apparatus of claim 3, wherein the first and second  
2 blowers are inverted relative to one another with the exhaust outlets  
3 being proximate one another.

1           5.     The apparatus of claim 4, wherein the width is less than 16  
2 inches.

1           6.     The apparatus of claim 4, wherein the width is less than 12  
2 inches.

1           7.     The apparatus of claim 3, wherein the rear panel includes an  
2 extension portion that extends away from the front panel a distance  
3 greater than the width.

1           8.     The apparatus of claim 6, wherein the extension portion  
2 includes a pair of vertical flanges extending from the rear panel defining  
3 an opening that receives a portion of the blower housing, the flanges  
4 defining a length as measured along a vector between the first and  
5 second sides that is less than the distance between two standard size  
6 studs used in building construction.

1           9.     The apparatus of claim 8, wherein the width of the extension  
2 is less than 14 inches.

1           10.    The apparatus of claim 3, wherein the centrifugal blowers  
2 provide at least 1200 cubic feet per minute of cooled air through the  
3 cooler housing.

1           11.    The apparatus of claim 3, wherein the centrifugal blowers  
2 provide at least 1750 cubic feet per minute of cooled air through the  
3 cooler housing.

1           12.    The apparatus of claim 3, wherein a portion of the blower  
2 extends into the extension.

1           13.   The apparatus of claim 3, wherein a portion of the blower  
2   housing extension into the extension.

1           14.   The apparatus of claim 3, wherein a portion of the blower  
2   wheel extends into the extension.

1           15.   The apparatus of claim 2, wherein the blower wheel has a  
2   diameter of at least nine inches.

1           16.   The apparatus of claim 2, wherein each blower includes a  
2   motor mounted proximate one of the blower inlets.

1           17.   The apparatus of claim 15, wherein one motor faces the  
2   right side and the other motor faces the left side.

1           18.   The apparatus of claim 16, wherein the blower housing does  
2   not extend more than five inches into the extension.

1           19.   The apparatus of claim 17, wherein the blower housing  
2   includes a portion that is proximate the front panel.

1           20.   A low profile evaporative cooler extending through a building  
2   structure wall having standard spaced studs, the cooler comprising;

3               a housing including a front panel and an opposing rear panel  
4   configured to be attached directly to the building structure wall, the  
5   housing further including a first and second side extending between the  
6   front and rear panels and configured to allow air to enter there through,  
7   the front panel having an exposed surface area that is substantially  
8   uninterrupted to prevent air from entering there through;

9               a first and second evaporative rigid media pad being located  
10   proximate the first and second sides respectively; and

11                   a pair of centrifugal blowers located within the housing, each  
12 blower having at least one air inlet facing one of the first and second  
13 sides; a portion of each of the blower extending into the wall between the  
14 standard spaced studs.

1           21.   The apparatus of claim 20, further including at least one  
2 extension extending from the rear panel inwardly into the building  
3 structure between the standard spaced studs.

1           22.   The apparatus of claim 21, wherein a portion of each blower  
2 extends into the building structure between the standard spaced studs.

1           23.   The apparatus of claim 22, wherein the blowers are located  
2 one on top of another.

1           24.   The apparatus of claim 23, wherein the blowers are inverted  
2 relative to one another, wherein an exhaust outlet of each blower is  
3 proximate each other.

1           25.   The apparatus of claim 20, wherein the blowers are located  
2 in a side by side arrangement, each blower extending between two  
3 different pairs of standard spaced studs.

1           26.   The apparatus of claim 24, wherein each blower includes a  
2 motor located proximate an air inlet.

1           27.   The apparatus of claim 26, wherein one of the motors faces  
2 the first side of the housing and the other motor faces the second side of  
3 the housing.

1           28.   An evaporative cooler comprising:  
2                   a cooler housing having a front panel, an opposing rear  
3 panel, and a first and second side extending there between, a distance

4 between the first and second side is at least two times a distance  
5 between the front and rear panels;

6 a pair of rigid media located proximate the first and second  
7 sides respectively.

8 a centrifugal blower having at least one air inlet facing one of  
9 the first and second sides and configured to draw cooled air through the  
10 rigid media pads and exhaust the air through an opening in the rear panel.